

WHAT IS CLAIMED IS:

1. An automated system for experimentation comprising:  
an experiment engine operable to define an experiment  
relating to various treatments for a set of content elements,  
5 the experiment engine operable to conduct the experiment over  
a data network;

an observation module operable to collect observation  
data relating to user behavior for each treatment; and

10 a scripting/scheduling engine operable to coordinate the  
operation of the experiment engine and the observation module.

2. The system of Claim 1 wherein the experiment engine  
is operable to identify elements of content which may  
influence user behavior.

3. The system of Claim 1 wherein the experiment engine  
is operable to implement statistical sampling procedures to  
deliver over the data network the various treatments to  
respective control groups of users.

4. The system of Claim 1 wherein the experiment engine  
is operable to store data relating to the set of content  
elements, objective user behavior to be observed, and users  
allocated to receive treatment during the experiment.

5. The system of Claim 1 wherein the experiment engine  
comprises an experiment manager object operable to control the  
execution of the experiment.

6. The system of Claim 1 wherein the experiment engine  
comprises an experiment manager object operable to specify  
different treatments of content.

7. The system of Claim 1 wherein the experiment engine comprises an experiment manager object operable to define and implement statistical sampling procedures.

5 8. The system of Claim 1 wherein the experiment engine comprises an experiment manager object operable to record the experiment under way and the participating users.

10 9. The system of Claim 1 wherein the experiment engine comprises an experiment data store operable to store experiment data.

15 10. The system of Claim 1 wherein the data network comprises the Internet.

11. The system of Claim 1 wherein the observation module comprises an observation access object operable to provide access to the observation data.

20 12. The system of Claim 1 wherein the experiment engine is operable to generate a set of experiment rules for allocating treatments during the experiment.

25 13. The system of Claim 1 further comprising an interface in communication with the experiment engine, the interface operable to allow a user to interact with the experiment engine to define the experiment.

30 14. The system of Claim 1 further comprising an allocator module operable to systematically allocate a treatment to a user during the experiment.

15. An automated method for experimentation comprising:

defining an experiment relating to various treatments for a set of content elements;

conducting the experiment over a data network;

collecting over the data network observation data

5 relating to user behavior for each treatment; and

generating at least one script to coordinate defining an experiment, conducting the experiment, and collecting observation data.

10 16. The method of Claim 15 wherein defining an experiment comprises:

identifying desired objectives for user behavior;

identifying which treatments may influence user behavior related to the desired objectives; and

15 generating the various treatments using different combinations of the content elements.

17. The method of Claim 16 further comprising:

20 defining at least one control variable for the various treatments; and

assigning a respective level for the control variable for each treatment.

25 18. The method of Claim 15 wherein conducting the experiment comprises:

selecting at least one treatment for delivery to users;

grouping users into a plurality of segments, each segment comprising users with similar behavioral characteristics; and

30 specifying a particular segment of users to receive the selected treatment.

19. The method of Claim 15 wherein conducting the experiment comprises:

statistically sampling to specify a plurality of control groups, each control group comprising at least one user;

specifying a particular treatment to be delivered to the at least one user in each control group;

5 receiving identical requests for content from the respective at least one user in each of the control groups; and

in response to the identical requests, delivering to the at least one user in each control group a different treatment.

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20. The method of Claim 19 further comprising observing site-related behavior of users receiving the various treatments.

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21. The method of Claim 15 wherein the data network comprises the Internet.

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22. The method of Claim 20 wherein collecting observation data comprises recording observed behavior in each control group during the experiment.

23. The method of Claim 15 further comprising identifying elements of content which potentially influence behavior of users.

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24. An automated system for experimentation comprising: a content system operable to store content, the content comprising a set of content elements; and

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a communication management system in communication with the content system and operable to define an experiment relating to various treatments for the set of content elements, conduct the experiment over a data network, collect over the data network observation data relating to user behavior for each treatment, and generate at least one script

for coordinating the operation of the content system and the communication management system.

25. The system of Claim 24 wherein the communication management system is operable to identify content elements which may influence user behavior.

26. The system of Claim 24 wherein the communication management system is operable to implement statistical sampling procedures to deliver over the data network the various treatments to respective control groups of users.

27. The system of Claim 24 wherein the communication management system is operable to generate a set of experiment rules for allocating treatments during the experiment.

28. The system of Claim 24 wherein the content system is operable to allocate treatments to users according to the experiment rules.

29. The system of Claim 24 wherein the communication management system is operable to group users into a plurality of segments, each segment comprising users with similar behavioral characteristics.

30. The system of Claim 24 wherein said data network comprises the Internet.

31. The system of Claim 24 wherein the communication management system is operable to define at least one control variable for the various treatments and to assign a respective level for the control variable for each treatment.

32. The system of Claim 24 wherein the content system and the communication management system are connected to the data network.

5 33. The system of Claim 24 wherein the content system comprises an allocator module operable to support an interface with the communication management system.

10 34. The system of Claim 24 wherein the communication management system comprises an allocator interface object operable to support an interface with the content system.

15 35. The system of Claim 24 further comprising a content provider interface operable to support an interface between the communication management system and a manager user.

20 36. An automated system for experimentation comprising:  
an experiment engine operable to define an experiment relating to various treatments for a set of content elements, the experiment engine operable to allocate each treatment to a separate control group of users over a data network;

an observation module operable to collect observation data relating to user behavior for each treatment; and

25 a scripting/scheduling engine operable to coordinate the operation of the experiment engine and the observation module.

30 37. The system of Claim 36 wherein the experiment engine is operable to identify elements of content which may influence user behavior.

38. The system of Claim 36 wherein the experiment engine is operable to implement statistical sampling procedures to deliver over the data network the various treatments to respective control groups of users.

39. The system of Claim 36 wherein the data network comprises the Internet.

5 40. An automated method for experimentation comprising:  
defining an experiment relating to various treatments for  
a set of content elements;

allocating each treatment to a separate control group of  
users over a data network;

10 collecting over the data network observation data  
relating to user behavior for each treatment; and

generating at least one script to coordinate defining an  
experiment, conducting the experiment, and collecting  
observation data.

15 41. The method of Claim 40 wherein the data network  
comprises the Internet.

20 42. The method of Claim 40 further comprising  
identifying elements of content which potentially influence  
behavior of users.

43. A method for on-line experimentation comprising:  
defining a plurality of treatments for a set of content  
25 elements;

providing a website on a data network;  
receiving requests for content from users accessing the  
website on the data network;

30 statistically sampling to create at least one control  
group of users;

allocating over the data network a first treatment to  
each user in the control group;

allocating over the data network a second treatment to each user not in the control group;

collecting observation data for observed behavior of users in the control group and users not in the control group;

5 and

generating at least one script to coordinate allocating the first and second treatments and collecting observation data.

10 44. The method of Claim 43 further comprising identifying elements of content which may influence user behavior.

15 45. The method of Claim 43 wherein providing a website comprises providing a web page at which the set of content elements is available in the form of any of the treatments.

46. The method of Claim 43 wherein the data network comprises the Internet.